

**Sertifikaat**

REPUBLIEK VAN SUID AFRIKA

PATENT KANTOOR  
DEPARTEMENT VAN HANDEL  
EN NYWERHEID



REPUBLIC OF SOUTH AFRICA

PATENT OFFICE  
DEPARTMENT OF TRADE AND  
INDUSTRY

Rec'd PCT/PTO  
Certificate

15 JUN 2005

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REC'D 18 MAR 2004

WIPO PCT

the documents annexed hereto, are true copies of Application  
Forms P1, P2, Provisional Specification and drawings of Patent  
Application No. 2002/5038 filed in the name of RISSIK GEORGE  
VICTOR on 24 June 2002 and post-dated to 17 December 2002 and  
entitled: "A DEVICE TO ALTER THE DIRECTIONAL MOVEMENT  
OF AN AUTOMATIC POOL CLEANER".

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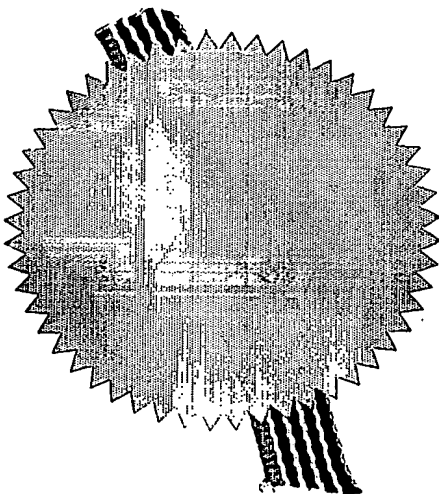
Geteken te  
Signed at  
**PRETORIA**

in die Republiek van Suid-Afrika, hierdie  
in the Republic of South Africa, this

11<sup>th</sup> dag van  
day of  
March 2004

*B. Goepbe*  
Registrar of Patents

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(To be lodged in duplicate)

PATENTS ACT, 1978

REPUBLIC OF SOUTH AFRICA

17.12.02

## REGISTER OF PATENTS

Official application No.		Lodging date: Provisional		Acceptance date	
21	2002/5038	22	17.12.02	47	
International Classification		Lodging date: Complete		Granted date	
51		23			
Full name(s) of applicant(s)/Patentee(s):					
71	RISSIK: GEORGE VICTOR				
Applicants substituted:					
71					Date registered
Assignee(s):					
71					Date registered
Full name(s) of inventor(s):					
72	RISSIK: GEORGE VICTOR				
Priority claimed					
		33	Country	31	Number
		33		31	32
		33		31	32
		33		31	32
Title of invention:					
54	A DEVICE TO ALTER THE DIRECTIONAL MOVEMENT OF AN AUTOMATIC POOL CLEANER				
Address of applicant(s)/Patentee(s)					
Address for service					
74	JOHN E KERNICK				
Patent of addition No.					
61	Date of any change				
Fresh application based on					
Date of any change					

## APPLICATION FOR A PATENT AND ACKNOWLEDGEMENT OF RECEIPT

The grant of a patent is here  
in duplicate.

Official Application No.

2002/5038

Applicant's or agent's reference

(ii)

Full name(s) of applicant(s)

KISSIK: GEORGE VICTOR

(iii)

Address(es) of applicant(s)

66 GORTHE ROAD, LOMBARDY EAST 2090

(iv)

Title of invention A DEVICE TO ALTER THE DIRECTIONAL MOVEMENT OF AN AUTOMATIC POOL CLEANER

(v)

The applicant claims priority as set out on the accompanying form P 2.

(vi)

This application is for a patent of addition to Patent Application No.

(vii)

This application is a fresh application in terms of section 37 and based on Application No.

(viii)

This application is accompanied by:

1. A single copy of a provisional or two copies of a complete specification of.....pages.
2. Drawings of.....sheets.
3. Publication particulars and abstract (form P 8 in duplicate).
4. A copy of Figure.....of drawings (if any) for the abstract.
5. An assignment of invention.
6. Certified priority document(s) (state number).
7. Translation of the priority document(s).
8. An assignment of priority rights.
9. A copy of the form P 2 and the specification of S.A. Patent Application No. ....
10. A declaration and Power of Attorney on form P 3.
11. Request for ante-dating on form P 4.
12. Request for classification on form P 9.
- 13.

(ix)

Address for service:

JOHN E. KERNICK  
Box 2427 K. ROSE 1116

Dated this 14 day of June 20 02

Signature of applicant(s) or agent

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Post - dated stamp	Official date stamp
2002-06-24	17.12.2002
REGISTRATEUR VAN PATENTE, MODELLE, HANDELSMERKE EN OUTEURSREG	

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REPUBLIC OF SOUTH AFRICA  
PATENTS ACT, 1978  
DECLARATION AND POWER OF ATTORNEY  
(Section 30 - Regulation 8, 22(i)(c) and 33)

FORM P.3

PATENT APPLICATION NO	
21	012002/5038

REF:

LODGING DATE	
22	2002-06-24

FULL NAME(S) OF APPLICANT(S)	
71	RISSIK: GEORGE VICTOR

FULL NAME(S) OF INVENTOR(S)	
72	RISSIK: GEORGE VICTOR

EARLIEST PRIORITY CLAIMED	COUNTRY	NUMBER	DATE
	33	31	32

NOTE: The country must be indicated by its International Abbreviation - see schedule 4 of the Regulations

TITLE OF INVENTION	
54	A DEVICE TO ALTER THE DIRECTIONAL MOVEMENT OF AN AUTOMATIC POOL CLEANER

\* I/we George Victor Rissik  
hereby declare that :-

- \* 1. I/we am/are the applicant(s) mentioned above;
- \*\* 2. I/we have been authorized by the applicant(s) to make this declaration and have knowledge of the facts herein stated in the capacity of \_\_\_\_\_ of the applicant(s);
- \*\*\* 3. the inventor(s) of the abovementioned invention is/are the person(s) named above and the applicant(s) has/have acquired the right to apply by virtue of an assignment from the inventor(s);
4. to the best of my/our knowledge and belief, if a patent is granted on the application, there will be no lawful ground for the revocation of the patent;
- \*\*\*\* 5. this is a convention application and the earliest application from which priority is claimed as set out above is the first application in a convention country in respect of the invention claimed in any of the claims; and
6. the partners and qualified staff of the firm of \_\_\_\_\_, patent attorneys, are authorised, jointly and severally, with powers of substitution and revocation, to represent the applicant(s) in this application and to be the address for service of the applicant(s) while the application is pending and after a patent has been granted on the application.

SIGNED AT Germiston THIS 14 DAY OF June 2002 2002

George Victor Rissik

SIGNATURE(S)  
(no legalization necessary)

\* In the case of application in the name of a company, partnership or firm, give full names of signatory/signatories, delete paragraph 1, and enter capacity of each signatory in paragraph 2.  
\*\* If the applicant is a natural person, delete paragraph 2.  
\*\*\* If the right to apply is not by virtue of an assignment from the inventor(s), delete "an assignment from the inventor(s)" and give details of acquisition of right.  
\*\*\*\* For non-convention applications, delete paragraph 5.

REPUBLIC OF SOUTH AFRICA

PATENTS ACT, 1978

## PROVISIONAL SPECIFICATION

(Section 30(1) - Regulation 27)

Official Application No.

21

01

**2002/5038**

Lodging Date

22

~~2002-06-24~~

post-dated

Full name(s) of applicant(s)

71

Rissik: George Victor

Full name(s) of inventors(s)

72

Rissik: George Victor

Title of invention

54

A DEVICE TO ALTER THE DIRECTIONAL MOVEMENT OF AN AUTOMATIC BOOK CLEANER

ANGLED DOUBLE SWIVEL FOR AUTOMATIC CLEANING DEVICES FOR CLEANING  
SWIMMING POOL SURFACES

FIELD OF THE INVENTION

This invention relates to a device used with automatic cleaning devices used for cleaning submerged surfaces of, for example, swimming pools for changing the direction of the unit while in motion so as to enhance the automatic cleaning devices efficiently.

BACKGROUND TO THE INVENTION

The automatic cleaning devices are generally attached by flexible hosing to the inlet of the pool filtration system and have an associated problem in Above-Ground Pools and Square Bottom In-ground Pools, in particular of either sticking in the corner or only cleaning the edges of the floor where it meets the wall, because of the wall to floor configuration being 90° or thereabouts. A problem with devices presently available is that they would appear to only change the direction of the unit once the pump is switched off which is insufficient to greatly alter the direction of the automatic cleaning device and therefore its cleaning efficiency.

OBJECT OF THE INVENTION

It is an object of this invention to provide a device which would change the direction of the automatic cleaning apparatus while it is in motion so that the unit cleans substantially more of the floor surface than is now cleaned.

### SUMMARY OF THE INVENTION

In accordance with this invention there is provided a tubular body set at an angle which has an inlet and an outlet and a flow passage there between and on each of these inlet and outlets is provided a swivel connection. The inlet swivel connection would be coupled to the automatic cleaning apparatus and the outlet swivel connection coupled to the flexible hose which would be attached to the inlet to the pump mechanism. As the swivel on the inlet and outlet rotate through  $360^{\circ}$  with respect to the angled tubular body the automatic cleaning apparatus will move at an ever-changing angle to the flexible hose and thus achieve a complete random pattern.

### BRIEF DESCRIPTION OF THE DRAWINGS

One embodiment of the invention will be described, by way of example only, with reference to the drawings in which:

Fig. 1 shows a sectioned side elevation of the entire device.

Fig. 2 shows an exploded view of the device as in Fig. 1.

### DETAILED DESCRIPTION OF THE DRAWINGS

The device is shown in Figure 1 which has a tubular body 1 angled, on to which at each end is attached a circular hollow member 2 which fits over the ends of the tubular body and is able to swivel or rotate through  $360^{\circ}$ .

These circular hollow members 2 are retained in position by a notch fitting 3 on the circular hollow member which fits a similar sized concave area 4 on the tubular body 1. Once fitted together, an angled double swivel arrangement is provided with a common inlet 5 and a common outlet 6.

Reference is now made to Figure 2 of the drawings in which the same reference numerals used above are used to designate similar parts. The swivel couplings 2 comprise a sleeve portion which is cylindrical in shape with a circumferential inwardly extending rib 3 in the inner surface of the sleeve portion 2 and is securable within a complimentary shaped circumferential notch 4 in the outer surface of the tubular body 1.



These circular hollow members 2 are retained in position by a notch fitting 3 on the circular hollow member which fits a similar sized concave area 4 on the tubular body 1. Once fitted together, an angled double swivel arrangement is provided with a common inlet 5 and a common outlet 6.

Reference is now made to Figure 2 of the drawings in which the same reference numerals used above are used to designate similar parts. The swivel couplings 2 comprise a sleeve portion which is cylindrical in shape with a circumferential inwardly extending rib 3 in the inner surface of the sleeve portion 2 and is securable within a complimentary shaped circumferential <sup>notch</sup> 4 in the outer surface of the tubular body 1.

FIG 1

i202/5038

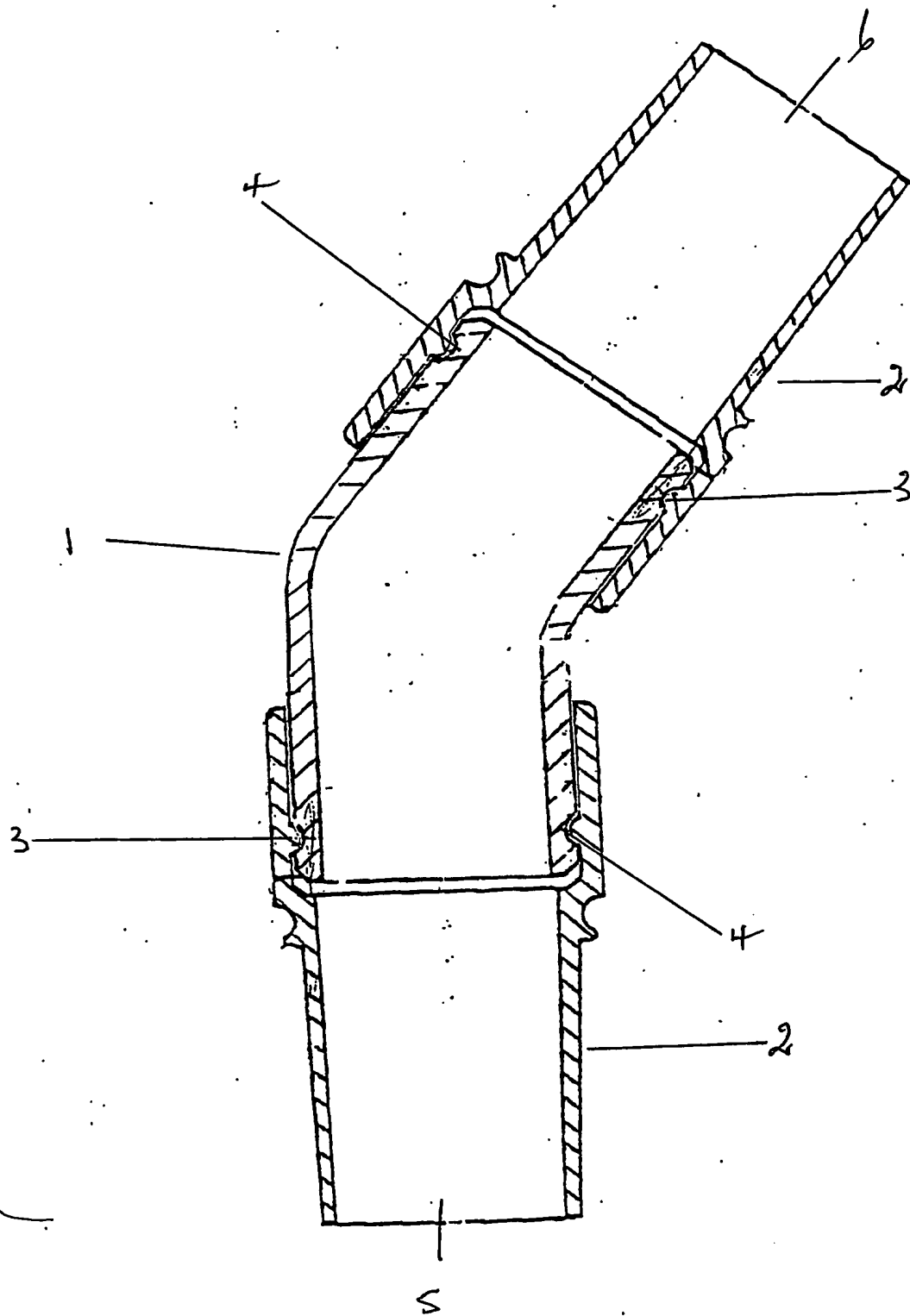
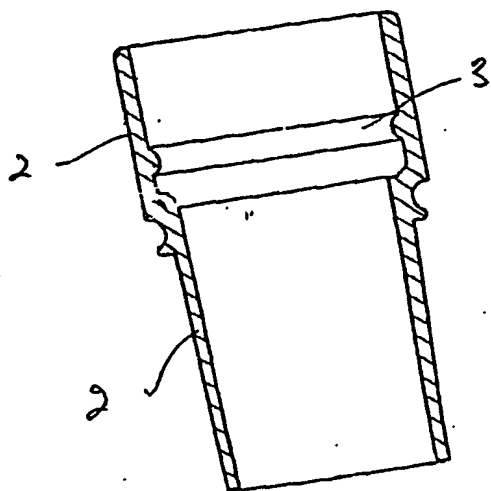
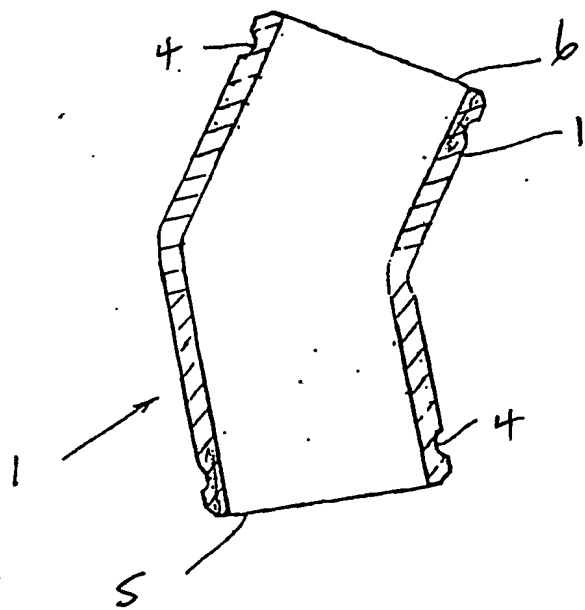
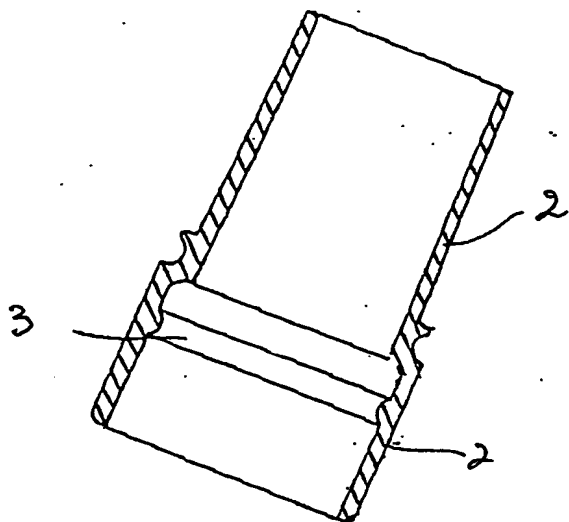


Fig 2



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